

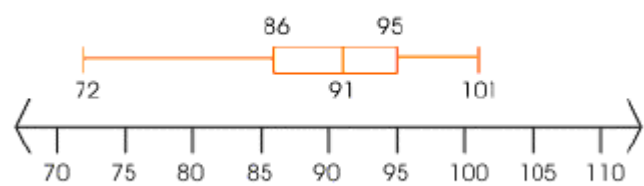
Data Management: Mock Unit Test

1. Which of the following statements reveals a cause and effect relationship?
- A. the number of students in class and the size of your shoes
 - B. the colour of your hair and the height of a tree
 - C. the length of a movie and the admission price
 - D. the distance you drive and the amount of gas you burn
2. A student has a summer job mowing lawns. She wants to cut each lawn as fast as she can. Which of the following would be a dependent variable(s)?
- A. the type of lawn mower used
 - B. the kind of gas used
 - C. the area to be mowed
 - D. amount of time it takes to mow the lawn
3. What is the independent variable of the situation?
- A. The lawn
 - B. The type of lawn mower
 - C. Time spent mowing
 - D. The area to be mowed
4. A person does not look straight down when he measures a line. This will affect the:
- A. Precision
 - B. Accuracy
 - C. Significance
 - E. None of the above
5. Joe measures the width of the room to be 3.5 meters. Moe measures the width of the same room to be 3.54. This will affect the:
- A. Precision
 - B. Accuracy
 - D. Significance
 - E. None of the above
6. Which of the following has 4 significant digits?
- A. 0.001 m
 - B. 1200 m
 - C. 1204 m
 - D. 0.300 m
7. Calculate $44.5 + 22.754 = ?$
- A. 67.254
 - B. 67.25
 - C. 67.3
 - D. 67.2
8. Which of the following represents the correct number of significant digits for: $2.1\text{ cm} \times 1.23\text{ cm}$?
- A. 2.583 cm
 - B. 3 cm
 - C. 2.58 cm
 - D. 2.6 cm
9. What is the median of the following set of data {1, 2, 3, 4, 5, 6}?
- A. 3
 - B. 3.5
 - C. 4
 - D. 3.3
10. Which of the following can be used for non-numerical data?
- A. Mean
 - B. Median
 - C. Mode
 - D. Range
11. Which of the following is most influenced by outliers?
- A. Mean
 - B. Median
 - C. Mode
 - D. All are influenced
12. Which piece of data would be considered an outlier in the following set {10, 13, 14, 34}?
- A. 10
 - B. 13
 - C. 14
 - D. 34
13. Which of the following is a measure of central tendency?
- A. Mean
 - B. Median
 - C. Mode
 - D. All of the above
14. What is the maximum number of bins that a histogram should have?
- A. 7
 - B. 5
 - C. 10
 - D. 20
15. The stem and leaf plot below gives the points scored by the OHS boy's Basketball team in the 28 games they played in their season.

Stem	Leaf	Count
3	226778	6
4	346	3
5	2555689	7
6	11223	5
7	0237	4
8	24	2
9	6	1

- A. 32 B. 57 C. 64 D. 96

**** Answer questions 16-17 using the box-and-whisker plot below.****



16. Between what 2 numbers does 50% of the data lie?
A. 72 & 86 B. 86 & 95 C. 95 & 101 D. 72 & 101
17. What score might be considered to be an outlier?
A. 72 B. 86 C. 91 D. 101

**** Use the following data for questions # 18, 19, and 20****

Daily round-trip distances to school (in km) for 10 randomly selected students from the Gagetown, Upper Gagetown and Burton area:

9.5	20	23	23	25
31	32	35	36	40

18. What is the lower quartile of the data?
A. 23 B. 20 C. 23.5 D. 25
19. What is the upper quartile of the data?
A. 35.3 B. 33.5 C. 35 D. 36
20. What is the typical time for a student to drive?
A. 25 B. 27.5 C. 28 D. 31
21. The results of a high school math test are normally distributed. The mean is 65 and the standard deviation is 10. Which of the following would be an outlier?
A. 35 B. 45 C. 55 D. 65
22. What percentage of data would you expect to lie within 1 standard deviation from the mean?
A. 98% B. 68% C. 95% D. 65%
23. What is the standard deviation of this data {5, 8, 3, 4, 9}?
A. 5.3 B. 2.3 C. 26.7 D. 5.2
24. Data that is considered normal in a normally distributed set of data is within:
A. 1 SD of the mean B. 2 SD of the mean C. 3 SD of the mean D. 68% of the data
25. When you graph a scatter plot to show the relationship between two variables, the independent variable is placed on the :
A. center area B. y-axis C. x-axis D. up top
26. A line of best fit is used on a:
A. box-and-whisker B. stem-and-leaf C. histogram D. scatter plot
27. A frequency polygon is drawn from a:
A. box-and-whisker B. stem-and-leaf C. histogram D. scatter plot
28. Another word used to describe a normal distribution is....
A. a histogram B. the bell curve C. a frequency polygon D. nothing is normal
29. Which of the following lists of numbers would have the smallest value for its standard deviation?
A. (40, 50, 60, 70, 80) B. (0, 5, 100, 150, 200) C. (1, 2, 3, 4, 5) D. (1000, 1000, 1000, 1000)
30. If we made a new set of data from this data {2, 2, 3, 5, 6, 6, 8} that had the same number of data values, the same standard deviation, the same range; however had a different mean an acceptable answer would be:
A. {2, 5, 5, 5, 5, 5, 8} B. {3, 3, 4, 6, 7, 7, 9} C. {0, 1, 2, 4, 5, 7, 7} D. {2, 1, 2, 4, 5, 5, 8}